Jiangxin Builds Strong Capabilities in Industrial Induction Heater Technology and Solutions

3,000m² factory with annual output of 120,000 units, offering OEM/ODM customization, one-year free warranty and lifetime maintenance.



Logo for JONSON

CALIFORNIA, CA, UNITED STATES, September 11, 2026 / EINPresswire.com/ -- The Foshan-based manufacturer, established in 2011, rates heat conversion efficiency at 98 percent or higher across most of its induction heating equipment and reports a vacuum diffusion pump retrofit that reduced electricity consumption by more than 40 percent.

Guangdong Jiangxin Electronic Technology Co., Ltd. designs and manufactures industrial induction heating equipment at a 3,000-square-meter facility in Shunde District, Foshan City, Guangdong Province, where its product line covers rated power from 2.5 kW to 200 kW. The company, established in 2011, states that heat conversion efficiency on most models is rated at 98 percent or higher, and that its products are certified to CE and ISO standards. Jiangxin reports approximately 60 employees, an engineering team of more than 30 people and annual production capacity of 120,000 units, with exports accounting for 40 percent of sales to markets including Europe, the United States, India and Indonesia.

Industry Context

Process heat is one of the largest energy loads in manufacturing, and plant operators continue to evaluate electrical heating methods as an alternative to resistance-element and combustion-

based systems. Induction heating applies an alternating magnetic field to a conductive workpiece so that eddy currents generated inside the material produce heat directly. Because heat is generated in the workpiece rather than in a separate resistance element, the process is non-contact and does not involve an open flame.

Jiangxin's product documentation lists intended applications across plastics and rubber, food processing, chemical reactions, crude oil pipeline heating, textile printing and dyeing, aquaculture heating, metal heat treatment, building heating and medicinal herb drying. Within those sectors, buyers typically compare equipment on heat conversion efficiency, available power range, controllability of output power and temperature, integration with existing control systems, and the availability of replacement coils and service support.

The practical questions that follow tend to be similar across industries: whether the power stage matches the load, whether the control interface can be connected to a plant's existing PLC or supervisory system, whether the coil geometry fits the vessel or barrel being heated, and whether the supplier can support installation and maintenance over the life of the equipment. Induction heating equipment suppliers are therefore assessed on documentation, configuration flexibility and service reach as much as on the heating principle itself.

Technology: High-Frequency Conversion and Digital Control

How the heating loop works

Jiangxin's equipment converts a 50 Hz AC supply into a high-frequency current in the 5 kHz to 40 kHz range using an IGBT inverter module. That current drives an electromagnetic coil, which generates an alternating magnetic field and induces eddy currents in the metal being heated. Power regulation is stepless between 20 percent and 100 percent of rated output, and operating frequency varies by model, with 70 kW and 80 kW units specified at 4 kHz to 50 kHz.

The company states that its converters use Infineon IGBT modules, a high-speed digital signal processor phase-shifting algorithm that recalculates each output cycle to optimize energy conversion, and magnetic isolation driver technology intended to reduce the interference associated with optocoupler drivers. Multi-stage EMI suppression is applied to the control supply. Across most of the range, the specified ambient operating temperature is minus 20 to 50 degrees Celsius with ambient humidity of 95 percent or less.

Control, protection and communication

The control system is a DSP-based high-speed automatic phase-locking tracking design. Documented specifications for the 100 kW model, the JS1000-100, include a full-bridge series resonance main circuit, a start time of less than one second, instantaneous overcurrent

protection within 2 microseconds, power overload protection at 130 percent, and a fully electrically isolated soft start and stop mode. Output power can be adjusted through a 0-5 V input voltage or over RS-485, and the system supports load temperature detection from 0 to 1,000 degrees Celsius with accuracy of up to plus or minus 1 degree Celsius.

Higher-power units can be configured with air cooling or water cooling. Jiangxin states that the equipment also supports the Modbus protocol to simplify secondary development and integration into existing control architectures, and that a coil-to-ground protection function is designed to protect the unit when coil insulation is breached or short-circuited. The company states that its production facility holds ISO management system certifications and a work safety standardization certificate.

Product Coverage From 2.5 kW to 200 kW

The portfolio is organized around a common induction heating platform and then scaled by power stage, enclosure format and intended load. Lower-power single-phase units serve small plastic machinery and light process heating, wall-mounted three-phase units serve mid-size industrial loads, and three-phase high-power units serve boilers, thermal oil circuits, large pipelines and reactor heating. The principal families are as follows.

Induction heater units and controllers: single-phase 220 V models at 2.5 kW and 3 kW, and 3.5 kW, 5 kW and 6 kW models with effective power rated at 98 percent or higher; 380 V models at 5 kW and 8 kW (JS1300-005/008), 10 kW and 15 kW (JS1300-10/15, carrying CE, ISO and RoHS certification), 20 kW (JS1000-20), 30 kW (JS1000-30), 40 kW, 50 kW and 60 kW units, 70 kW and 80 kW units rated at 99 percent or higher heat conversion efficiency, and the three-phase 100 kW JS1000-100.

Customizable voltage versions: 110 V, 240 V and 660 V configurations across rated power bands of 500 W to 10 kW, 5 kW to 60 kW, 5 kW to 200 kW and 30 kW to 200 kW.

Control boards and drive boards: including a single-phase full-bridge 8 kW electromagnetic heating control board rated at 220 V with a 160 V to 260 V input range and heat conversion efficiency of 98 percent or higher, and 100 kW to 200 kW drive boards described by the company as suitable for large boilers, steam systems, thermal oil circuits, large pipelines and reactors.

Process heat equipment: the JS-1600 induction steam generator in 30 kW, 40 kW and 50 kW versions with a 304 stainless steel liner and 99 percent or higher heat conversion efficiency; the JS-1600-8/12/15 induction hot air generator in 8 kW, 12 kW and 15 kW versions with an outlet temperature range of 80 to 130 and wind pressure of 800 to 1,000 Pa; and the JS-JR-008 instant induction water heater rated 3.5 kW to 8 kW at 220 V for hotels, hospitals and schools.
Components and retrofit service: customizable copper induction heating coils rated 1 kW to 100 kW at 220 V or 380 V, the JS1300-5/8/15/20/30 bearing heater available at 5 kW, 8 kW, 15 kW, 20

kW and 30 kW, and induction heating retrofit services for existing heating equipment.

On the highest-power product, the JS1000-100 is a three-phase 100 kW unit with a rated input current of 140 to 150 A and a rated output current of 200 to 220 A, operating at 380 V and 50 Hz to 60 Hz with constant power output between 300 V and 400 V. It weighs 35 kg, measures 635 mm by 445 mm by 315 mm, and is specified with a programmable digital display and an open application platform mode.

Across the range, documented common specifications include a power regulation range of 20 percent to 100 percent, ambient humidity tolerance of 95 percent or less, copper heating coils, thickened aluminum alloy and cold-rolled steel plate casings, and 304 stainless steel liners on complete units. Documented dimensions range from 295 mm by 169 mm by 145 mm on the JS1300-005/008 up to 1,000 mm by 603 mm by 330 mm on the hot air generator.

Documented figures for evaluation. Company specifications state: rated power from 2.5 kW to 200 kW; heat conversion efficiency of 98 percent or higher on most models; operating frequency of 5 kHz to 40 kHz; power regulation of 20 percent to 100 percent; load temperature detection from 0 to 1,000 degrees Celsius with accuracy of up to plus or minus 1 degree Celsius; ambient temperature range of minus 20 to 50 degrees Celsius on most models; CE and ISO certification on multiple models, with RoHS on selected units.

Certification and Intellectual Property

Certification coverage is model-specific. The JS1300-10/15 and JS1600-8/12/15 hot air generator carry CE, ISO and RoHS certification in their published specifications, while the JS1000-20, JS1000-30, JS1000-100 and JS1300-005/008 list CE and ISO. Company information states that products also comply with China's 3C certification and that the company holds national patent certificates and computer software copyrights alongside its ISO management system certifications.

Two granted patents are cited in company information. The first is a utility model covering an electromagnetic-heating rotary kiln, patent number CN222812133U, filed in July 2024 and authorized in April 2025, which the company states increases manufacturing flexibility, operating safety and heating efficiency for processed materials. The second is a detachable external induction heating device designed for easier maintenance, patent number CN216253292U, authorized in 2022. For buyers, the relevance of this documentation is procedural: certification and patent records are among the items typically requested during supplier qualification and during equipment acceptance checks in regulated production environments.

Applications and Reported Retrofit Results

Published applications include energy-saving retrofits on plastic machinery such as injection

molding machines, wire drawing machines, granulators, film blowing machines and extruders; food machinery including roasting and seed-processing equipment; chemical and petroleum machinery; hardware processing; woodworking machinery; boilers; space heating; vacuum coating diffusion pumps; papermaking rollers; thermal oil pipelines; and water pipelines.

Vacuum diffusion pump retrofit

In one reported case, a diffusion pump with a diameter of 820 mm heated by conventional 15 kW resistance elements required approximately 60 minutes to reach temperature and consumed 15 to 18 kWh per hour in operation. Jiangxin reports that after retrofit with its dedicated induction equipment, consumption fell to 7 to 8 kWh per hour, a reduction of more than 40 percent, while heating time was shortened by more than half. The figures are company-reported operating results for a specific installation rather than a general performance guarantee, and actual results depend on load geometry, insulation condition and duty cycle.

Plastics processing and process heat

For injection molding machine retrofits, Jiangxin supplies a multi-channel electromagnetic induction controller rated at 8 kW that can drive four coils, a configuration the company states improves working performance and installation efficiency during retrofit work. On the process heat side, the application documentation describes steam generation reaching steam in approximately 30 seconds and hot air furnaces reaching rated temperature in approximately 3 minutes, with modular parallel connection so that capacity can be added or reduced as required, and with water, thermal oil and hot air available as heating media.

The same documentation describes design features relevant to plant safety reviews: physical separation of water and electricity or oil and electricity in closed-loop circulation, automatic interlock shutdown in the event of water shortage, overheating or overpressure, and operation without smoke emissions. Installation guidance calls for a defined coil-to-load distance, an insulation layer on the heated area, ventilation or water cooling for the control cabinet, and separation of the controller from humid, dusty and corrosive environments.

Company Statement

In its company profile, Jiangxin states that it operates on the principle of scientific and technological innovation and military quality, and that it guarantees a ten-year service life for the complete machine, together with one year of free maintenance and lifetime maintenance support. The company describes itself as an energy-saving solution provider whose products and solutions are used in heating, chemical industry, mold manufacturing, plastic machinery and food processing, and states that its engineering team is committed to adapting products to

different customer requirements. Jiangxin also states that it provides OEM and ODM services and can customize logo, color, material, size, structure and shape to customer requirements.

Market Impact

Jiangxin reports that exports account for 40 percent of its sales, with Europe, the United States, India and Indonesia identified as major markets. That export orientation matters for industrial buyers because equipment intended for multiple markets must satisfy different electrical configurations and certification expectations, which is consistent with the company's published 110 V, 240 V, 380 V and 660 V options and its CE and ISO documentation.

For plants evaluating induction heating, the practical implications of a broad power range are narrower than they first appear. A supplier that can cover small single-phase loads and three-phase high-power loads from one platform can reduce the number of vendors a maintenance department deals with, and can often reuse the same control conventions, spare coils and service procedures across a site. The trade-off is that buyers still need to verify that the specific model matches the load characteristics: coil dimensions, insulation condition, available supply voltage and required temperature profile vary by application, and published ratings describe the equipment rather than the installed result. Jiangxin's stated customization scope, covering voltage, coil geometry and enclosure format, is aimed at that gap between catalogue ratings and on-site conditions.

Customization, Delivery and Service

Beyond standard models, the company states that it produces customized configurations for voltage, power band, coil dimensions and enclosure, and that its OEM and ODM services extend to branding and structural changes. On delivery, Jiangxin states that regular stock items can ship within one to three days, while non-stock and customized products take approximately 40 days. The company reports approximately 30 production workers at its 3,000-square-meter facility, supported by a design team and an after-sales team.

Service arrangements stated by the company include pre-sales guidance from its chief engineer at the installation site, a one-year free warranty, and lifetime maintenance, delivered through a national marketing and technical service network for distributors and end users. For overseas buyers, these terms are typically verified against the purchase contract, since warranty scope, spare part availability and response times are contractual matters rather than catalogue specifications.

Closing Outlook

Guangdong Jiangxin Electronic Technology Co., Ltd. occupies a defined position in industrial induction heating: a manufacturer with a 3,000-square-meter facility in Shunde District, Foshan City, Guangdong Province, a product range from 2.5 kW to 200 kW, stated heat conversion efficiency of 98 percent or higher on most models, CE and ISO certification on multiple units, and documented retrofit experience in plastics machinery and vacuum pump heating. For procurement and engineering teams in the awareness and research stage, the practical next step is to specify the load, the required temperature profile, the available supply voltage and the control interface, then confirm which model and coil configuration fits, and which certifications and test documentation the installation requires.

Mr. Zhou
Guangdong Jiangxin Electronic Technology Co., Ltd.
+86 186 6427 7928
jx@fsjxrn.com.cn

This press release can be viewed online at: https://www.einpresswire.com/article/941374277

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.
© 1995-2026 Newsmatics Inc. All Right Reserved.